



## Review Article

**CORRELATIVE STUDY OF PRAKRITI WITH SANDHIVATA****Amit Kumar Tanwar<sup>1\*</sup>, Arun Kumar Bhadula<sup>2</sup>, Parul Singh<sup>3</sup>**

<sup>1</sup>Senior Ayurveda Expert (Analysis & Monitoring), TKDL Unit, Council of Scientific & Industrial Research (CSIR), New Delhi, India.

<sup>2</sup>Senior Consultant (Ayurveda), Central Council for Research in Ayurvedic Sciences (CCRAS) Hqrs., Janakpuri, New Delhi

<sup>3</sup>Assistant Professor, Bharat Ayurvedic College & Hospital, Muzaffarnagar, Uttar Pradesh.

**KEYWORDS:** *Prakriti, Sandhivata, Samanaya.*

**ABSTRACT**

*Prakriti* is the health profile or unique psychosomatic temperament of an individual encompassing his or her physical, functional and behavioural characteristics. *Prakriti* is not only an instrument to examine the patient but also influences the onset, occurrence, pathogenesis, diagnosis, prognosis and management of a patient. Among the various specific characteristics of Ayurveda, the knowledge of '*Prakriti*' is at the top. Charaka, while directing tenfold examination of a patient (*Dasvidh Pariksha*), has counted '*Prakriti*' on the top. *Prakriti* is most important in achieving the goal of Ayurveda, i.e. the maintenance of health of a healthy individual and cure of a diseased person. Keeping the knowledge of *Prakriti* in mind, a physician can suggest the person to follow up the day, night and seasonal regimens for the maintenance of health. Not only this, a diseased person can be easily managed by the knowledge of the *Prakriti* in the diagnosis as well as treatment. The knowledge of *Prakriti* eases the process of management of a disease because according to Ayurvedic concept, no disease in the body is possible without involvement of *Dosha* and the management is the reestablishment of *Doshas* in their normal state.

For the purpose of present study, 30 patients of *Sandhivata* were selected from OPD and IPD of Ayurvedic and Unani Tibbia College Hospital and from Multi-Speciality Hindustani Dawakhana, Delhi having complaints related to '*Sandhivata*' as per the "criteria for the selection of the patients" given below. On the basis of clinical examination (signs & symptoms) and necessary investigation (X-ray of the involved joints), the diagnosis of *Sandhivata* was established, then the patients were included in the study. The *Prakriti* of each patient was identified with the help of standard proforma, based on various signs & symptoms presented by various Ayurvedic authors for this purpose. The study revealed that *Sandhivata* has predominance in *Vata pradhan prakriti* due to *Samanaya siddhanta*.

**\*Address for correspondence****Dr. Amit Kumar Tanwar**

Senior Ayurveda Expert (Analysis & Monitoring), TKDL Unit, Council of Scientific & Industrial Research (CSIR), New Delhi  
Mob: 09958829808  
Email: [dramit.tanwar01@gmail.com](mailto:dramit.tanwar01@gmail.com)

**INTRODUCTION**

Ayurveda which literally means the "Science of life" is a natural healing system developed in India. It deals elaborately with measures for healthful living during the entire span of life and its various phases. Besides dealing with principles for maintenance of health, it has also developed a wide range of therapeutic measures to combat illness. A characteristic feature of Ayurvedic system of medicine is that it considers the individual as whole, rather than just the disease. It takes into consideration the individual's constitution, susceptibility to diseases, mental makeup, life style and other factors. This has been refined to a very high degree in Ayurveda with its powerful concept of *Prakriti*.

It is our routine experience that due to the increase of stress and strain in our daily life, the *Vata-Vyadhies* are increasing day by day in general population. The stress is not only psychological but physical stress is also increasing. If any disorder is found in the locomotor system, it restricts the movements of joints and hampers the normal routine life.

The *Sandhivata* is a classical joint disorder mentioned in different Ayurvedic texts. Acharya Charak has described the disease with the name "*Sandhigata anila*" and defined this as a disease with symptoms of *Shotha* which on palpation revealed as air filled bag and *Shoola* on movements of joints. *Sandhivata* comes under pure *Vataja Vyadhi*. When vitiated *Vata* locates itself in

*Sandhi sthan*, then it is known as *Sandhigata vata*. It is clinically represented as joint pain in or around the joints, stiffness, swelling, tenderness and crepitus.

#### Objectives of the study

- To pave the path for better knowledge of occurrence of *Sandhivata* with reference to *Prakriti*.

#### MATERIALS AND METHODS

**Sample:** For the purpose of present study, 30 patients of *Sandhivata* were selected from OPD and IPD of Ayurvedic and Unani Tibbia College Hospital and from Multi-Speciality Hindustani Dawakhana, Delhi having complaints related to '*Sandhivata*' as per the "criteria for the selection of the patients" given below. On the basis of clinical examination (signs & symptoms) and necessary investigation (X-ray of the involved joints), the diagnosis of *Sandhivata* was established, then the patients were included in the study.

The *Prakriti* of each patient was identified with the help of standard proforma, based on various signs & symptoms presented by various Ayurvedic authors for this purpose.

#### Sample frame

- Study design:** Single arm, Randomized, Interventional, Quasi-experimental
- Sample size:** 30
- Selection of patients:** As per inclusion and exclusion criteria
- Study setting:** Ayurvedic & Unani Tibbia College Hospital, Delhi

#### Basic Criteria for Selection & Diagnosis of Cases

- Firstly, personal history of patient – name, age, sex, religion, occupation, marital status, diet, economic status, educational qualification, addiction, duration of illness, nature of distribution and involvement of joints etc.
- The basic clinical findings (signs and symptoms) of the patients of *Sandhivata* are
  - Sandhi shotha* - (swelling of the affected joints)
  - Sandhi shoola* - (Joint pain)
  - Vatapurnadrati Sparsha* - (crepitus)
  - Prasaran akunchanyo Pravritisacha savedana* (pain during flexion & extension of joints)
  - Stambhadta* (stiffness of the involved joint)
  - Tenderness
- Radiological changes were also the criteria for selection of patients :-
  - Narrowing of the joint space
  - Formation of osteophytes
  - Bone sclerosis
  - Bone deformity
- Laboratory investigations – No laboratory studies are diagnostic for *Sandhivata*, the ESR, serum biochemistry and urine analysis are normal in *Sandhivata*. The following lab investigations were done for differential diagnosis of *Sandhivata*.
  - Serum R.A. factor
  - Serum uric acid
  - Serum calcium

#### Inclusion criteria

- Out of these above findings, the patients having four or more of the following symptoms were registered:
  - Sandhi shotha* – swelling in joint
  - Sandhi shoola* – joint pain
  - Vatapurna drati sparsha* – crepitus
  - Prasarana akunchanyo pravritisacha savedana* (pain during movement of joint)
  - Stambhadta* / stiffness of the involved joint)
  - Tenderness
  - Osteophytes formation in affected joint
  - Joint space reduction
- Patient willing to give written informed consent

#### Exclusion criteria

- Patient below 30 years of age
- Patient having serious Cardiac disorders
- Patients with any cardiac disease, life-threatening disease
- patients with positive R.A. factor
- Any other condition that may jeopardize the study.

#### Determination of Prakriti

It has been observed that the study of the cases of *Sandhivata* has not been made under the influence of *Prakriti* of the patients. Therefore I decided to study the *Prakriti* of the patient and observe the occurrence of the disease. I will find out the *Prakriti* of each patient with the help of standard proforma and will find out if *Sandhivata* has any relation with *Prakriti* i.e. if *Sandhivata* has predominance of any particular *Doshaja Prakriti*.

#### OBSERVATIONS

In the present study, total 35 patients of *Sandhivata* (osteoarthritis) were registered. Out of which 30 patients completed the full course of trial but 5 patients left the trial in between and did not complete the whole course. So the present data is analysed, on the basis of total 30 patients, for observing the rate of occurrence of *Sandhivata* according to *Prakriti* and degree of improvement.

This study was carried out with two main objects keeping in view viz.

- Aetiological Observation
- Clinical Observation

#### Aetiological Observation

- Age:-** Showing Age Distribution in cases of *Sandhivata*

**Table 1: Showing Age Distribution in cases of Sandhivata**

| S. No. | Age-Group | Total | Percentage |
|--------|-----------|-------|------------|
| 1      | 30-40     | 3     | 10%        |
| 2      | 40-50     | 8     | 26.6%      |
| 3      | 50-60     | 11    | 36.6%      |
| 4      | 60-70     | 6     | 20%        |
| 5      | 70-80     | 2     | 6%         |
| Total  |           | 30    | 100%       |

In the present study, the range of age of the patients was divided in five groups from 30 years to 80 years in 30 patients. It was found that the age group of 51 to 60 years, 41 to 50 years and 61 to 70 years comprises the maximum number of patients 11 (36.6%),

8 (26.6%) and 6 (20%) in each group respectively. This observation reveals that *Sandhivata* affects more in higher age groups.

**2) Sex :-** Sex Distribution in cases of *Sandhivata*

**Table 2: Sex Distribution in cases of *Sandhivata***

| S. No. | Sex    | Total | Percentage |
|--------|--------|-------|------------|
| 1      | Male   | 7     | 23.3%      |
| 2      | Female | 23    | 76.6%      |
| Total  |        | 30    | 100%       |

The sex incidence among 30 patients, 7 (23.3%) patients were male and 23 (76.6%) patients were female. This shows that *Sandhivata* affect more in female than males.

**3) Age Distribution in Females:**

**Table 3: Age Distribution in Females**

| S. No. | Age-Group | Total | Percentage |
|--------|-----------|-------|------------|
| 1      | 30-45     | 4     | 17.3%      |
| 2      | 45-60     | 12    | 52.1%      |
| 3      | 60-75     | 7     | 30.4%      |
| Total  |           | 23    | 100%       |

This observation shows that out of 23 female cases of *Sandhivata*, maximum were from age group 45-60 age group, and then 60-75 age group, 12 patients (52.1%) and 7 patients (30.4%) respectively. This shows that *Sandhivata* is more generalized in older women due to calcium deficiency after menopause.

**4) Occupation:-** Showing Occupation Distribution in cases of *Sandhivata*

**Table 4: Occupation Distribution in cases of *Sandhivata***

| S. No. | Occupation  | Total | Percentage |
|--------|-------------|-------|------------|
| 1      | Housewife   | 21    | 70%        |
| 2      | Service     | 6     | 20%        |
| 3      | Businessman | 0     | 0%         |
| 4      | Other       | 3     | 10%        |
| Total  |             | 30    | 100%       |

The observation shows that maximum number of patients in this study belong to housewife class, 21 patients (70%). This is probably due to over burden, mental and physical fatigue, stress and strain due to household work as well as ignorance. All these conditions lead to *Vata prakopa* and ultimately resulted in *Vata vyadhis*. Also, there were 6 patients (20%) of service class and 3 patients (10%) from others which included tailor, labourer etc.

**5) Marital Status:-** Showing Marital Status in cases of *Sandhivata*

**Table 5: Marital Status in cases of *Sandhivata***

| S. No. | Marital Status | Total | Percentage |
|--------|----------------|-------|------------|
| 1      | Married        | 29    | 96.6%      |
| 2      | Unmarried      | 1     | 3.3%       |
| Total  |                | 30    | 100%       |

Considering the marital status, vast majority of patient 29 (96.6%) were married while 1 patient (3.3%) was unmarried.

**6) Education:-** Showing Educational Status in cases of *Sandhivata*

**Table 6: Educational Status in cases of *Sandhivata***

| S. No. | Education                  | Total | Percentage |
|--------|----------------------------|-------|------------|
| 1      | Illiterate                 | 14    | 46.6%      |
| 2      | Below High School          | 3     | 10%        |
| 3      | High School / Intermediate | 10    | 33.3%      |
| 4      | Graduate / PG              | 3     | 10%        |
| Total  |                            | 30    | 100%       |

As far as educational status is concerned, out of 30 patients, majority were illiterate -14 patients (46.6%), followed by high school and intermediate -10 (33.3%), and below high school 3 (10%) and graduate and post graduate 3 (10%). This shows that due to illiteracy, there was ignorance which makes them prone to *Vatavyadhis*.

**7) Economic Status:-** Showing Economic Status in cases of *Sandhivata*

**Table 7: Showing Economic Status in cases of *Sandhivata***

| S. No. | Economic Status | Total | Percentage |
|--------|-----------------|-------|------------|
| 1      | Lower           | 16    | 53.3%      |
| 2      | Middle          | 12    | 40%        |
| 3      | Higher          | 2     | 6.6%       |
| Total  |                 | 30    | 100%       |

Regarding the economic condition, it was observed that maximum number of patients were from lower income group 16 patients (53.3%). This shows that due to poverty and improper living conditions, they were more prone to *Sandhivata*. They were closely followed by middle income group 12 patients (40%) due to bearing increased mental stress and having hard working culture.

**8) Diet:-** Showing Dietary habits in cases of *Sandhivata*

**Table 8: Showing Dietary habits in cases of *Sandhivata***

| S. No. | Dietary Habits | Total | Percentage |
|--------|----------------|-------|------------|
| 1      | Vegetarian     | 17    | 56.6%      |
| 2      | Mixed          | 13    | 43.3%      |
| Total  |                | 30    | 100%       |

As far as dietary habits of *Sandhivata* patients is concerned, out of 30 cases, 17 (56.6%) patients were vegetarian and 13 (43.3%) were having mixed diet. It showed that this disease is slightly higher in vegetarian group than mixed group.

**9) Addiction:-** Showing Addiction Habit in cases of *Sandhivata*

**Table 9: Showing Addiction Habit in cases of *Sandhivata***

| S. No. | Addiction         | Total | Percentage |
|--------|-------------------|-------|------------|
| 1      | Tea / Coffee      | 23    | 76.6%      |
| 2      | Tobacco / Smoking | 5     | 16.6%      |
| 3      | Alcohol           | 2     | 6.6%       |
| Total  |                   | 30    | 100%       |

Regarding the addiction habit of the patients, it was observed that the maximum number of 23 (76.6%) patients were in tea / coffee habit followed by 5 (16.6%) patients were in tobacco / smoking habits while 2 (6.6%) patients were in alcohol habit. It showed that addiction to tea / coffee may be the risk factor of *Sandhivata*.

**10) Habitat:-** Showing distribution of habitat in cases of *Sandhivata*

**Table 10: Showing distribution of habitat in cases of *Sandhivata***

| S. No. | Habitat    | Total | Percentage |
|--------|------------|-------|------------|
| 1      | Urban      | 11    | 36.6%      |
| 2      | Semi-Urban | 19    | 63.3%      |
| Total  |            | 30    | 100%       |

Regarding the habitat of the patients, it was observed that the maximum number of patients 19 (63.3%) belong to semi-urban.

**11) Aahar-Shakti**

**Table 11: Aahar-Shakti of the patients**

| S. No. | Aahar Shakti | Total | Percentage |
|--------|--------------|-------|------------|
| 1      | Pravar       | 5     | 16.6%      |
| 2      | Madhyam      | 18    | 60%        |
| 3      | Avar         | 7     | 23.3%      |
| Total  |              | 30    | 100%       |

Regarding *Aahar Shakti* of the patients, it was observed that maximum patients 18 (60%) were of *Madhyam Aahar Shakti* followed by 7 (23.3%) patients of *Avar Aahar Shakti*. This may be due to *Mithya-aahar* which is an important cause for vitiation of *Vata*.

**12) Vyayam Shakti**

**Table 12: Vyayam Shakti of Patients**

| S. No. | Vyayam Shakti | Total | Percentage |
|--------|---------------|-------|------------|
| 1      | Pravar        | 1     | 3.3%       |
| 2      | Madhyam       | 9     | 30%        |
| 3      | Avar          | 20    | 66.6%      |
| Total  |               | 30    | 100%       |

Regarding *Vyayam Shakti* of the patients, it was observed that maximum patients were of *Avar Vyayam Shakti* 20 (66.6%), followed by 9 patients (30%) of *Madhyam vyayam Shakti*. This is due to the fact that the symptoms of *Sandhivata* (joint pain, swelling, stiffness, pain during movement) have a great effect on the *Vyayam shakti*.

**13) Family History:-** Showing Family History of diseases in cases of *Sandhivata*

**Table 13: Family History of diseases in cases of *Sandhivata***

| S. No. | Family History       | Total | Percentage |
|--------|----------------------|-------|------------|
| 1      | Osteoarthritis       | 6     | 20%        |
| 2      | Rheumatoid arthritis | 0     | 0%         |
| 3      | Diabetes             | 2     | 6.6%       |
| 4      | Hypertension         | 1     | 3.3%       |
| 5      | No family history    | 21    | 70%        |
| Total  |                      | 30    | 100%       |

Considering the family history of the patients, it was observed that maximum number of 21 (70%) patients were having no family history, only 6 (20%) patients were from osteoarthritis, 2 (6.6%) patients from diabetes and 1 (3.3%) patient was having hypertension family history. This shows that hereditary factor is the least incidence of disease *Sandhivata*.

**14) Duration of Illness:-** Showing duration of illness in cases of *Sandhivata*

**Table 14: Duration of illness in cases of *Sandhivata***

| S. No. | Duration of illness | Total | Percentage |
|--------|---------------------|-------|------------|
| 1      | 6-12 month          | 2     | 6.6%       |
| 2      | 1-2 yr.             | 6     | 20%        |
| 3      | 2-4 yr.             | 12    | 40%        |
| 4      | 4-6 yr.             | 6     | 20%        |
| 5      | 6-8 yr.             | 1     | 3.3%       |
| 6      | 8-10 yr.            | 1     | 3.3%       |
| 7      | 10-12 yr.           | 2     | 6.6%       |
| Total  |                     | 30    | 100%       |

Considering the duration of illness, we have recorded the illness from 6 months to 12 years, maximum 12 patients (40%) were having the history of illness from two to four years, followed by 6 patients (20%) each having history of illness from one to two years and four to six years. 2 patients (6.6%) were having duration from six to twelve months and ten to twelve years each respectively.

**Clinical Observation**

In the present study, 30 cases were clinically studied and observed according to description available in different Ayurvedic and modern text. It was observed that most of the patient showed *Sandhi shool* (joint pain) *Sandhi shotha* (swelling), pain on movement, crepitus, stiffness and tenderness.

**15) Clinical signs and symptoms present in the patients of *Sandhi vata***

**Table 15: signs and symptoms present in the patients of *Sandhi vata***

| S. No. | Signs & Symptoms   | Total | %     |
|--------|--|-------|-------|
| 1      | <i>Sandhi shotha</i> (swelling)                                | 25    | 83.3% |
| 2      | <i>Sandhi shoola</i> (joint pain)                              | 30    | 100%  |
| 3      | <i>Vatapurnadrati sparsha</i> (crepitus)                       | 22    | 73.3% |
| 4      | <i>Prasarana akunchna pravriti savedena</i> (painful movement) | 30    | 100%  |
| 5      | Tenderness   | 23    | 76.6% |
| 6      | <i>Stambhadta</i> (stiffness)                                  | 27    | 90    |

In the present study, all 30 patients (100%) showed symptoms of *Sandhishoola* and painful movement, 25 patients (83.3%) showed *Sandhishotha*, 27 patients (90%) stiffness, 23 patients (76.6%) tenderness and 22 patients (73.3%) showed crepitus.

**16) Nature of involvement of joints**

**Table 16: Nature of involvement of joints**

| S. No. | Nature of involvement of joint | Total | Percentage |
|--------|--------------------------------|-------|------------|
| 1      | Symmetrical                    | 7     | 23.3%      |
| 2      | Asymmetrical                   | 23    | 76.6%      |
| Total  |                                | 30    | 100%       |

This observation showed that maximum 23 (76.6%) patients were having asymmetrical involvement of joint while 7 (23.3%) patients showed symmetrical involvement of joint.

**17) Involvement of joints:-** Showing the distribution of involvement of joint in different part of body in cases of *Sandhivata*.

**Table 17: Involvement of joint in different part of body in cases of *Sandhivata***

| S. No. | Type of joints    | Total | Percentage |
|--------|-------------------|-------|------------|
| 1      | Knee joint        | 25    | 83.3%      |
| 2      | Lumbosacral joint | 6     | 20%        |
| 3      | Cervical joint    | 3     | 10%        |
| 4      | Hip joint         | 2     | 6.6%       |
| 5      | Shoulder joint    | 1     | 3.3%       |

It was observed that 25 (83.3%) patients suffered from osteoarthritis of knee joint, 6 (20%) patients showed lumbosacral joint involvement and 3 (10%) patients showed cervical joint involvement, while 2 (6.6%) patients show hip joint involvement. This observation showed that osteoarthritis involvement of knee joint was significantly higher than other joint.

**18) Initial involvement of knee joint:-** Showing distribution of initial involvement of knee joint in cases of *Sandhivata*.

**Table 18: involvement of knee joint in cases of *Sandhivata***

| S. No. | Involvement of knee joint | Total | Percentage |
|--------|---------------------------|-------|------------|
| 1      | Rt. Knee joint            | 13    | 52%        |
| 2      | Lt. knee joint            | 5     | 20%        |
| 3      | Both knee joints          | 7     | 28%        |
| Total  |                           | 30    | 100%       |

It was observed that out of 25 patients suffering from osteoarthritis of knee joint, maximum 13 (52%) patients suffered from right Knee joint than from left knee joint 5 (20%). This shows that right knee joint bears maximum body weight during walking or movement.

**19) Incidence of *Deha Prakriti*:-** Showing incidence of *Deha Prakriti* in cases of *Sandhivata*

**Table 19: incidence of *Deha Prakriti* in cases of *Sandhivata***

| S. No. | <i>Deha Prakriti</i> | Total | Percentage |
|--------|----------------------|-------|------------|
| 1      | <i>Vataja</i>        | 1     | 3.3%       |
| 2      | <i>Pittaja</i>       | 0     | 0%         |
| 3      | <i>Kaphaja</i>       | 1     | 3.3%       |
| 4      | <i>Vata-pitta</i>    | 15    | 50%        |
| 5      | <i>Vata kapha</i>    | 7     | 23.3%      |
| 6      | <i>Kapha-pitta</i>   | 6     | 20%        |
| 7      | <i>Sama</i>          | 0     | 0%         |

Regarding the incidence of *Deha prakriti*, it was observed that maximum patients 15 (50%) were of *Vataja-pittaja Prakriti*, followed by *Vataja kaphaja Prakriti* 7 patients (23.3%) and *Kaphaja-pittaja* 6 patients (20%). This is because *Sandhivata* is a *Vataja vyadhi* and so *Vata-pitta* and *Vata-kapha prakriti* are more prone to it.

**Table 20: X-Ray Findings**

| S. No. | X-Ray Finding         | Total | Percentage |
|--------|-----------------------|-------|------------|
| 1      | Osteophytes           | 24    | 80%        |
| 2      | Joint Space reduction | 22    | 73.3%      |
| 3      | Tibial Spiking        | 4     | 13.3%      |
| 4      | Lumbar Spondylitis    | 4     | 13.3%      |
| 5      | Cervical spondylitis  | 2     | 6.6%       |
| 6      | No finding            | 3     | 10.0%      |

Regarding the X-ray finding in cases of *Sandhivata*, the observation shows that maximum patients 24 (80%) showed Osteophytes formation, then 22 patients (73.3%) showed joint space reduction, followed by tibial spiking and lumbar spondylitis 4 patients each (13.3%). 3 patients (10%) showed no finding in X-rays.

**Laboratory Investigations**

The following investigations were done during the selection of patients.

1) Haemoglobin (Hb%), Total Leucocyte Count (TLC), Differential Leucocyte Count (DLC).

All these blood investigations were done and all 30 patients showed results in the normal range.

Mean Hb% = 12.1 gm%  
 Mean TLC = 7852/cumm  
 Mean DLC = Neutrophils 66.3  
 Lymphocytes 28.5  
 Eosinophils 2.5

These investigations were not significant in the selection of patients.

2) R.A. Factor. This test was done to exclude rheumatoid arthritis. All 30 patients showed negative result for this test.

3) Serum uric acid. This test was done to exclude gout. All 30 patients showed serum uric acid value in the normal range. Mean serum uric acid 4.6 mg/dl.

4) Serum calcium. The results of serum calcium value of 30 patients showed that the values were more or less in the normal range but slightly towards lower border of the normal range.

Mean serum calcium = 8.4 mEq/dl

5) X-ray of the involved joints. X-rays of the involved joints of all the 30 cases were performed. The results of the findings have been described in the previous table.

**Results**

The results in this present study "correlative study of *Prakriti* with *Sandhivata* " were assessed deeply. 30 patients of *Sandhivata* were registered and their *Prakriti* were found out with the help of standard proforma. The results were observed and analyzed:-

**Correlative Assessment**

| S. No. | <i>Deha Prakriti</i> | Total | Percentage |
|--------|----------------------|-------|------------|
| 1      | <i>Vataja</i>        | 1     | 3.3%       |
| 2      | <i>Pittaja</i>       | 0     | 0%         |
| 3      | <i>Kaphaja</i>       | 1     | 3.3%       |
| 4      | <i>Vata-pitta</i>    | 15    | 50%        |
| 5      | <i>Vata-kapha</i>    | 7     | 23.3%      |
| 6      | <i>Kapha-pitta</i>   | 6     | 20%        |
| 7      | <i>Sama</i>          | 0     | 0%         |

The observation shows that maximum patients 15 (50%) were of *Vataja-pittaja prakriti*, followed by *Vataja kaphaja prakriti* 7 patients (23.3%) and *Kaphaja-pittaja* 6 patients (20%). So *Sandhivata* has predominance in *Vata pradhan prakriti*, this is because *Sandhivata* is a *Vata vyadhi* and therefore *Vata pradhan prakriti* persons have more chances to develop *Sandhivata* as *Samanaya* is always the cause of increase.

## DISCUSSION

The present work entitled "Correlative study of Prakriti with Sandhivata" has been framed to pave the path for better knowledge of occurrence of *Sandhivata* with reference to *Prakriti*.

*Sandhivata* (osteoarthritis) is a classical joint disorder which comes under pure *Vataja vyadhi*. In modern medicine there is not any specific treatment for *Sandhivata* (osteoarthritis). Only symptomatic treatment is available like analgesics & anti inflammatory drugs etc. Ayurveda have linked the problem of *Sandhivata* with the concept of vitiation of *Vata*. When the vitiated *Vata* locates itself in *Sandhistan*, then it is known as *Sandhigatavata*. This vitiation of *Vata* is due to many causes such as *Aharaja*, *Viharaja*, *Mansika*, *Kalaja* etc.

For the purpose of present study, 30 patients of *Sandhivata* were registered having complaints related to *Sandhivata* as per the criteria for the selection of patients.

In the present study, the aetiological observation showed that the maximum number of patients of *Sandhivata* were between the age group of 50 to 70 years. This is because *Sandhivata* is a degenerative disease which is predominantly more prevalent in old age due to *Dhatukshaya*.

Regarding the incidence of sex, the females were more affected in comparison to males, particularly those females in the age group 45-60 years. This may be because of calcium deficiency in females after menopause.

Regarding occupation, maximum number of patients belongs to housewife class. This is probably due to over burden, mental and physical fatigue, stress and strain due to household work as well as ignorance.

As far as the economic status is concerned, the disease was more common in lower income group which may be due to predominance of *Dhatukshaya* in such patients. This also shows that due to poverty and improper living conditions, they were more prone to *Sandhivata*.

As far as the symptomatology is concerned, the major signs and symptoms were *Sandhi shoola* (pain in joint), *Sandhi shotha* (swelling in joint), *Prasaran akunchan pravritisavedena* (pain during movement), *Stambhadta* (stiffness) and *Vatapurnadrati sparsha* (crepitus).

As far as the involvement of joints is concerned, knee joint was the most affected joint 25 patients (83.3%). Also in knee joint, right knee joint was most affected. This shows that right knee joint bears maximum body weight during walking or movement.

Regarding the incidence of *Prakriti*, out of 30 patients, 15 patients (50%) were of *Vata-pitta prakriti* and 7 patients (23.3%) were of *Vata-kapha prakriti*. This shows that there is a correlation between *Sandhivata* and *Vata pradhan Prakriti*. *Sandhivata* is predominantly found in *Vatapradhan prakriti*. This is because *Sandhivata* is a *Vataja vyadhi* in which *Vata* is vitiated. *Vata pradhan Prakriti* persons have such *Aahar-vihar* and lifestyle that the chances of getting *Vata-vyadhis* are more in them and also the severity is more. As Charaka has said "*Sarvada Sarvabhavanam Samanaya vridhi karnam*". So *Vatapradhan prakriti* acts as *Samanaya* and thus *Sandhivata*, a *Vataja vyadhi* is more predominant in that. The vitiated *vata* locates itself in the *Sandhi-sthan* and causes dryness of the *Shleshak kapha*. The more incidence of *Vata-pitta prakriti* is also due to the fact that *Pitta*, in spite of being slightly *Snigdha*, due to its *Ushna-tikshna* properties promotes the dryness of *Shleshak kapha*. Also 6 patients (20%) were of *Kapha-pitta Prakriti*. This may be due to the fact that *Vata* gets aggravated by two means – one by its own aggravating factors and secondly by increased *Kapha* and *Pitta*, as told by *Charaka* in *Gulma chikitsa*. (Ch. Chik-5/4).<sup>(20)</sup> *Vayu* also gets aggravated by the *Paripidana* i.e. pressure on or obstruction of *Vayu* by increase in *Kapha* and *Pitta*.

## CONCLUSION

On the basis of present study we can conclude that

- 1) The main aetiology of *Sandhivata* is *Vata vardhak aahar-vihar* and *Dhatukshaya* along with *Manas vikar* like *Kama*, *Krodha*, *Chinta* etc.
- 2) *Sandhivata* is more prevalent in older age.
- 3) The chief signs and symptoms of the disease are *Sandhi Shoola*, *Sandhishotha*, *Vatapura Drati Sparsha*, *Stambhadta*, *Prasarana Akunchanyo Pravritisavadena* and tenderness.
- 4) The most affected joint in cases of *Sandhivata* is knee joint (mainly right knee joint)
- 5) The post menopause older age women were highly affected by the disease.
- 6) The disease was more common in housewives and in lower income groups.
- 7) Incidence of occurrence of *Sandhivata* is considerably high among *Vata-pitta prakriti* person (50%), followed by *Vata-kapha prakriti* (23.3%) and *Kapha-pitta prakriti* (20%).

Thus it can be concluded that *Prakriti* plays an important role on the onset / occurrence of disease.

## REFERENCES

1. Shri Lal Chand Vaidhya, Sarvang Sundari Commentary, Astang Hridaya of Vagbhata, Pub-Motilal Banarsia Das Pvt. Ltd. Delhi 1<sup>st</sup> Ed. Reprint 1990.
2. Kaviraj Atridev Gupt, Astang Sangrah of Vagbhata, Pub-Nirnay Sagar Press, 1995
3. Vaidya Ranjita Rai Desai, Ayurveda Kriya Sharira, pub- Sri Vaidyanadha Ayurveda Bhavan, 5<sup>th</sup> ed.
4. Bhagwan Das, Basic Principles of Ayurveda, pub-concept publishing Company, New Delhi.
5. Gorakhnath Chaturvedi and Pt. Kashi Nath Shastri, Charak Samhita Part I & II, published by

- Chaukhamba Bharti Academy Bridge, Vilas Press, Varanasi, 1982.
6. Dr. B. Tripathy, Charak Samhita, Chaukhamba Surbharti Prakashan Varanasi, 1983.
  7. Patankara Yashwant Yasuder, Deha *Prakriti* Vigyana, Ed. 1960-61.
  8. C. Gyton, Gyton's Human Physiology, W.B. Sanders Company and Prism Books Pvt. Ltd. Bangalore, 8<sup>th</sup> Ed. 1991
  9. P.V. Tiwari, Kashyapa Samhita, Chaukhamba Visvabharti, Varanasi, 1<sup>st</sup> Ed., 1996
  10. Dr. P.C. Jain and Y.D. Shukla, Kriya Sharir (Prayogik), Pub- Ayurveda & Tibbi Academy Lucknow, 1980
  11. Sri Vijaya Rakshita, The Madhukosa Sanskrit Commentary, Madhava Nidan of Madhavakar, 1986
  12. Kaviraj Gananath Sen, Siddhant Nidanam, IInd Part, Chaukhamba Sanskrit Series Office, Varanasi.
  13. Dr. Brahmanand Tripathy, Sharangdhar Samhita by Sharangadhar, Poorava Khand, Chaukhamba Prakashan, Varanasi, 3<sup>rd</sup> Ed., 1998
  14. Vaidya J.T. Acharya, Sushruta Samhita by Sri Dalhanacharya, Published by Chaukhamba Orientalia, Varanasi, 1980.
  15. Dr. B.G. Ghanekar, Sushruta Samhita, pub- M.L. Publication, Delhi, 1978.

**Cite this article as:**

Amit Kumar Tanwar, Arun Kumar Bhadula, Parul Singh, Correlative Study of Prakriti with *Sandhivata*. AYUSHDHARA, 2016;3(1):535-538.

**Source of support: Nil, Conflict of interest: None Declared**

